

EXHIBIT 8.7

EXAMPLES OF CALCULATIONS
FOR ADDITIONAL GROUNDWATER PUMPING

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Examples of Calculations for Additional Groundwater Pumping

The following examples illustrate calculations to determine additional groundwater pumping allowances for the San Xavier District and the eastern Schuk Toak District as provided in paragraph 8.7 of the Tohono O'odham Settlement Agreement.

I. SAN XAVIER RESERVATION:

Example A:

1. Determination of San Xavier District Maximum Demand (SXDM):

("San Xavier District Maximum Demand" is defined as "the largest total quantity of water (i) delivered by the Secretary to the Reservation for any use [other than direct groundwater recharge or use by Asarco], and (ii) pumped from groundwater for beneficial use on the Reservation, during any one of the five most recent Years that are not Deficiency Years [exclusive of water pumped from Exempt Wells].) The following hypothetical amounts of water use for each of the most recent five Years that are not Deficiency Years are provided for purposes of determining Maximum Demand for the Example A calculation:

Year 1 water use	13,000 af
Year 2 water use	16,000 af
Year 3 water use	17,000 af
Year 4 water use	20,000 af
Year 5 water use	19,000 af

2. Determination of additional quantity of groundwater that may be pumped during the Deficiency Year:

SXDM (highest year's water use is year 4)	20,000 af
Minus Secretary's delivery of CAP water in Deficiency Year	-7,000 af
Minus San Xavier Reservation groundwater pumping right	-10,000 af
[20% of SXDM	4,000 af]*
[Storage credits (excepting Marketable Credits)]:	
[Direct storage credits in account (excepting marketable)	5,000 af]*
[Deferred Pumping Storage Credits in account	50,000 af]*

**Bracketed items are not summed.*

Minus non-marketable storage credits up to 20% of SXDMD	<u>-4,000 af</u>
TOTAL	-1,000 af
ADDITIONAL GROUNDWATER THAT MAY BE PUMPED	0 af

Example B:

1. Determination of San Xavier District Maximum Demand (SXDMD):

The following hypothetical amounts of water use for each of the most recent five Years that are not Deficiency Years are provided for purposes of determining Maximum Demand for the Example B calculation:

Year 1 water use	19,000 af
Year 2 water use	20,000 af
Year 3 water use	25,000 af
Year 4 water use	21,000 af
Year 5 water use	23,000 af

Note: the only changes in Example B from Example A are the hypothetical amounts of water use for each of the most recent five years that are not Deficiency Years.

2. Determination of additional quantity of groundwater that may be pumped during the Deficiency Year:

SXDMD (highest year's water use is year 3)	25,000 af
Minus Secretary's delivery of CAP water in Deficiency Year	-7,000 af
Minus San Xavier Reservation groundwater pumping right	-10,000 af
[20% of SXDMD	5,000 af]*
[Storage credits (excepting Marketable Credits)]:	
[Direct storage credits in account (excepting marketable)	5,000 af]*
[Deferred Pumping Storage Credits in account	50,000 af]*
Minus non-marketable storage credits up to 20% of SXDMD	<u>-5,000 af</u>
TOTAL	3,000 af
ADDITIONAL GROUNDWATER THAT MAY BE PUMPED	3,000 af

*Bracketed items are not summed.

II. EASTERN SCHUK TOAK DISTRICT

Example A:

1. Determination of eastern Schuk Toak District Maximum Demand (ESTDMD):

("eastern Schuk Toak District Maximum Demand" is defined as "the largest total quantity of water (i) delivered by the Secretary to the eastern Schuk Toak District for any use [other than direct groundwater recharge], and (ii) pumped from groundwater for beneficial use in the eastern Schuk Toak District, during any one of the five most recent Years that are not Deficiency Years [exclusive of water pumped from Exempt Wells].) The following hypothetical amounts of water use for each of the most recent five Years that are not Deficiency Years are provided for purposes of the Example A calculation:

Year 1 water use	9,000 af
Year 2 water use	7,000 af
Year 3 water use	10,000 af
Year 4 water use	8,000 af
Year 5 water use	9,000 af

2. Determination of additional quantity of groundwater that may be pumped during the Deficiency Year:

ESTDMD (highest year's water use is year 3)	10,000 af
Minus Secretary's delivery of CAP water in Deficiency Year	-7,000 af
Minus eastern Schuk Toak District groundwater pumping right	-3,200 af
[20% of ESTDMD	2,000 af]*
[Storage credits (excepting Marketable Credits)]:	
[Direct storage credits in account (excepting marketable)	4,000 af]*
[Deferred Pumping Storage Credits in account	16,000 af]*
Minus non-marketable storage credits up to 20% of ESTDMD	<u>-2,000 af</u>
TOTAL	-2,200 af
ADDITIONAL GROUNDWATER THAT MAY BE PUMPED	0 af

**Bracketed items are not summed.*

Example B:

1. Determination of eastern Schuk Toak Maximum Demand (ESTDMD):

The following hypothetical amounts of water use for each of the most recent five Years that are not Deficiency Years are provided for purposes of determining Maximum Demand for the Example B calculation:

Year 1 water use	14,000 af
Year 2 water use	13,000 af
Year 3 water use	14,000 af
Year 4 water use	15,000 af
Year 5 water use	16,000 af

Note: the only changes in Example B from Example A are the hypothetical amounts of water use for each of the most recent five years that are not Deficiency Years.

2. Determination of additional quantity of groundwater that may be pumped during the Deficiency Year:

ESTDMD (highest year's water use is year 5)	16,000 af
Minus Secretary's delivery of CAP water in Deficiency Year	-3,000 af
Minus eastern Schuk Toak District groundwater pumping right	-3,200 af
[20% of ESTDMD	3,200 af]*
[Storage credits (excepting Marketable Credits)]:	
[Direct storage credits in account (excepting marketable)	4,000 af]*
[Deferred Pumping Storage Credits in account	16,000 af]*
Minus non-marketable storage credits up to 20% of ESTDMD	<u>-3,200 af</u>
TOTAL	-6,600 af
ADDITIONAL GROUNDWATER THAT MAY BE PUMPED	6,600 af

**Bracketed items are not summed.*